COMPUTERS & **EDUCATION**

Editors: David F. Rogers P. R. Smith

Author Index and Volume Contents

VOLUME 9 1985



computers and education

An International Journal

published quarterly

EDITORS

Professor DAVID ROGERS
Aerospace Engineering Academy
U.S. Naval Academy
Annapolis
MD 21402, U.S.A.

Dr P. R. SMITH
Department of Nuclear Engineering
Queen Mary College
London E1 4NS
U.K.

EDITORIAL ADVISORY BOARD

A. A. Pouring, U.S.A. (Founder Editor)

J. A. Adams, U.S.A.

D. H. Ahl, U.S.A.

P. B. Ayscough, U.K.

L. Braun, U.S.A.

R. L. Brennan, U.S.A.

C. V. Bunderson, U.S.A.

W. T. Fowler, U.S.A.

S. J. Garland, U.S.A. P. J. Grant, U.K. J. R. Hartley, U.K.

A. Hawkins, Netherlands

J. W. Johnson, U.S.A.

H. A. Kamel, U.S.A.

R. B. Kirchner, U.S.A.

D. R. Kniefel, U.S.A.

T. Kurtz, U.S.A.

V. Ledin, U.S.A. J. J. Matthews, U.K. S. D. Milner, U.S.A.

R. L. Phillips, U.S.A.

R. F. Riesenfeld, U.S.A.

W. E. Schiesser, U.S.A.

P. Thorne, Australia

C. H. Warlick, U.S.A.

M. Westrom, Canada

K. L. Zinn, U.S.A.

Publishing Office:

Journals Production Unit, Pergamon Press Ltd, Hennock Road, Marsh Barton, Exeter EX2 8RP, Devon, U.K. (Tel. Exeter (0392) 51558; Telex 42749)

Subscription enquiries and Advertising Offices:

North America: Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523, U.S.A. Rest of the World: Pergamon Press Ltd, Headington Hill Hall, Oxford OX3 0BW, U.K. (Tel. Oxford (0865) 64881).

Annual Subscription Rates 1986: For libraries, university departments, government laboratories, industrial and other multi-reader institutions—US \$155.00 per annum; 2-year rate (1986/87) US \$294.50 (including postage and insurance).

Specially Reduced Rates to Individuals: In the interests of maximizing the dissemination of the research results published in this important international journal we have established a two-tier price structure. Individuals, whose institution takes out a library subscription, may purchase a second or additional subscription for personal use at the much reduced rate of US \$45. Airmail subscription extra.

Microform Subscriptions and Back Issues: Back issues of all previously published volumes are available in the regular editions and on microfilm and microfiche. Current subscriptions are available on microfiche simultaneously with the paper edition and on microfilm on completion of the annual index at the end of the subscription year.

Copyright Pergamon Press Limited © 1985

It is a condition of publication that manuscripts submitted to this journal have not been published and will not be simultaneously submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. However, assignment of copyright is not required from authors who work for organizations which do not permit such assignment. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproductions, microform or any other reproductions of similar nature and translations. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, electrostatic, magnetic tape, mechanical, photocopying, recording or otherwise, without permission in writing from the copyright holder.

Photocopying information for users in the U.S.A.

The Item-Free Code for this publication indicates that authorization to photocopy items for internal or personal use is granted by the copyright holder for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service provided the stated fee for copying, beyond that permitted by Section 107 or 108 of the U.S. Copyright Law, is paid. The appropriate remittance of \$3.00 per copy per article is paid directly to the Copyright Clearance Center Inc., 21 Congress Street, Salem, MA 01970. The copyright owner's consent does not extent to copying for general distribution, for promotion, for creating new works or for resale. Specific written permission must be obtained from the publisher for such copying. In case of doubt please contact your nearest Pergamon Office.

The Item-Fee Code for this publication is: 0360-1315/85 \$3.00+0.00

Headington Hill Hall Oxford OX3 0BW, U.K.

PERGAMON PRESS

Maxwell House, Fairview Park Elmsford, NY 10523, U.S.A.

CONTENTS

No. 1

L. Borghi, A. De Ambrosis, G. Gazzaniga, L. Ironi, P. Mascheretti and C. I. Massara	1	Elastic waves in a medium: an interactive graphics package
Tina T. Cheng and Dorothy Jo Stevens	9	Prioritizing computer literacy topics
Donna Gail Shaw, Kathleen M. Swigger and John Herndon	15	Children's questions: a study of questions children ask while learning to use a computer
P. G. Thomas	21	Text processing in a student environment
Michael J. Cerullo, H. Perrin Garsombke and Lawrence A. Klein	31	Structuring an undergraduate accounting information systems course: alternate strategies
A. Aziz and Daniel Anderson	41	The use of a pocket computer in gas dynamics
Lynn Reinecker	57	Computerized clinical simulations
Thomas Rocklin, Angela O'Donnell, Donald F. Dansereau, Judith G. Lambiotte, Velma Hythecker and Celia Larson	67	Training learning strategies with computer-aided cooperative learning
George M. White	73	The Prisoner's Dilemma tournament
George M. White	73	The Prisoner's Dilemma tournament No. 2
George M. White D. R. Campbell	73 79	
		No. 2 Interactive graphics software for an undergraduate
D. R. Campbell	79	No. 2 Interactive graphics software for an undergraduate course in digital signal processing The role of the microcomputer in a computer sci-
D. R. Campbell R. H. Davis	79 87	No. 2 Interactive graphics software for an undergraduate course in digital signal processing The role of the microcomputer in a computer science course A video monitoring technique for investigating
D. R. Campbell R. H. Davis C. J. Bigum and A. Gilding	79 87 95	No. 2 Interactive graphics software for an undergraduate course in digital signal processing The role of the microcomputer in a computer science course A video monitoring technique for investigating computer-based learning programs The use of a computer tutorial as a replacement for

Francis Suraweera	135	A framework for university-industry interaction in computing in developing countries
Book Reviews	141	
Books Received	143	
Software Survey Section	1	
		No. 3
C. Bulucea	145	An HP-67/97 network analyser for EE students
N. A. B. Gray	155	A computer simulator for use in an introductory course on computer systems and assembly language programming
Robert M. Harper Jr	165	Software licensing for installations with multiple microcomputers
D. Budgen	171	Oggin—a teaching computer
John A. Glen and Leon J. Walker	183	Software development of interactive micro- computer programs used in teaching mathematics: a case history
Book Reviews	195	
Software Survey Section	1	
		No. 4
S. J. Pratt	197	Distributed computing: considerations for its use within educational environments
Ivan Tomek, Tomasz Muldner and Saleem Khan	205	PMS—a program to make learning Pascal easier
Stewart Marshall	213	Computer assisted feedback on written reports
Sheila Rao Vaidya	221	Individual differences among young children in Logo environments
Frank S. T. Hsiao	227	A statistical method of grading—theory and practice
C. M. Lim, W. C. Tan, J. C. Lim, W. C. Koh, H. B. Lim and W. W. Chew	235	A CAT package on the fundamentals of control engineering
S. Taylor	241	Open-ended problems for mechanical engineering students

